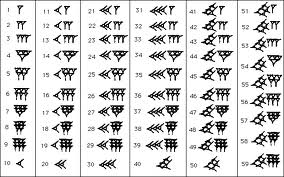
**HISTORY**

**OF**

**NUMBERS**

**AREA OF INTERACTION:** Human Ingenuity

This area of interaction focuses on the creative and inventive genius of human beings and its impact on society and the human mind.

|  |
| --- |
| **TASK**: You are to research different number systems, ways of writing numbers and counting |

**INSTRUCTIONS**:

* You must work individually
* You must present your finished work in the form of a PowerPoint presentation
* You must email your PowerPoint to your teacher by the due date

**SUGGESTIONS FOR COMMUNICATING YOUR WORK EFFECTIVELY**:

1. Make an introductory slide which explains the topic.
2. Include a diagram that explains the relationship between the different number sets we know about (natural numbers, whole numbers, integers, etc.), giving examples of numbers that belong to each number set (1 – 2 slides).
3. Explain why numbers were invented and give a brief history of the development of numbers (1 – 2 slides).
4. For **Roman numerals**, explain:

* When they developed
* Where they are still used today
* How you could use a table to make converting to Roman numerals easy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| (a) 122 | (b) 550 | (c) 999 | (d) 220 | (e) 28 |

* How the following numbers could be written in Roman numerals:

1. For **Arabic numerals**, explain:

* When they developed
* Why they are called Arabic numerals
* What the main difference is between them and Roman numerals

1. Re-write the first nine **Arabic numerals** in the following scripts:
2. Japanese
3. Hindi
4. Hebrew
5. Greek
6. Give a brief history of zero (1 – 2 slides)
7. Conclude with a bibliography (MLA format) slide showing the references you used.

**You may find the following internet sites useful:**

<http://www.bbc.co.uk/dna/h2g2/A385689>

<http://www-history.mcs.st-and.ac.uk/~history/Indexes/Number_Theory.html>

<http://physics.tamuk.edu/~cox/advclass/4303/suson/NumberHistory.html>

<http://www.novaroma.org/via_romana/numbers.html>

<http://www.romannumerals.co.uk/>

<http://www.unc.edu/~rowlett/units/roman.html>

**CRITERION C—COMMUNICATION**

|  |  |  |
| --- | --- | --- |
| **Achievement**  **Level** | **Level Descriptor** | **Task Specific Clarification** |
| **0** | The student does not reach a standard described by any of the descriptors given below. | |
| **1-2** | The student shows **basic** use of mathematical language **and/or** forms of mathematical representation. The lines of reasoning are **difficult to follow**. | In the PowerPoint presentation:  ▪ You used **basic** mathematical language **and/or** other mathematical ways of representing information, where appropriate.  ▪ Your thing was **difficult to follow** |
| **3-4** | The student shows **sufficient** use of mathematical language **and** forms of mathematical representation. The lines of reasoning are **clear** though not always **logical** or **complete**. The student moves between different forms of representation **with some success**. | In the PowerPoint:  ▪ You used **quite a lot** of mathematical language **and** other mathematical ways of representing information and you were able to link these together **quite well**.  ▪ Your reasoning was **clear** but it was **not always logical** and you sometimes **missed steps** |
| **5-6** | The student shows **good** use of mathematical language **and** forms of mathematical representation. The lines of reasoning are **concise**, **logical** and **complete**. The student moves **effectively** between different forms of representation. | ▪ You made **excellent** use of mathematical language and appropriate mathematical ways of representing information and you linked them all **very effectively**.  ▪ Your reasoning was **clear** and **logical** and you investigated **all aspects** of number systems. |